MUNICIPAL BOUNDARIES

THE TAXATION OF LARGE SCALE INDUSTRIAL ENTERPRISES

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MUNICIPAL BOUNDARIES AND THE TAXATION OF LARGE-SCALE INDUSTRIAL ENTERPRISES

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The Boundary Extension Task Force

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PREFACE

This paper has been prepared by the Policy and Research Branch, Ministry of Municipal Affairs for discussion by the Boundary Extension Task Force. It is not a statement of Ministry policy with respect to the issue of municipal boundary extensions but is directed at developing principles which may become part of such a policy.

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1.0 INTRODUCTION

In September of this year the Honourable Jack Heinrich, Minister of Municipal Affairs, announced formation of a Boundary Extension Task Force with the objective of providing advice on policies and principles to guide the expansion of municipal boundaries to enclose large industrial establishments. At the first meeting of the Task Force the Ministry commited itself to prepare and circulate a report on the following points:

a. the boundary extension decision: the economic and geographic circumstances under which a municipality's boundaries could be extended;

b. the taxation decision: whether taxation should be levied at the full municipal rate, the prevailing provincial rate or some other rate; how to determine taxation and maintain equity;

c. distribution alternatives: general alternatives, regional considerations and recent precedents.

The analytical portion of this paper is in six chapters. Chapter 3.0 reviews the current situation regarding municipal boundaries and the taxation of large-scale industrial enterprises. The current situation is discussed both from community and municipal viewpoints. Next, in Chapter 4.0, an analytical framework for municipal boundary and taxation decisions is provided; this framework is rooted in the economics of property taxation.

Chapters 5.0, 6.0 and 7.0 are the heart of the paper. Here will be found a discussion of the boundary decision, the tax

rate decision and the tax distribution decision. Chapters 5.0 and 6.0 proceed on the basis of a key simplifying assumption: the analysis concerns a single industry and a single community. Chapter 7.0 relaxes this condition to permit the analysis of situations, more true to life, where several industries may lie in close proximity to a number of towns.

The concluding chapter, Chapter 8.0, examines some technical issues related to procedure and land use. Before turning to the analytical portions of this paper, however, it is necessary to define the scope of this paper. Municipal taxation is merely one part of a complicated provincial-local fiscal system. How the subject of this paper relates to the larger system must be well understood. This is the subject of Chapter 2.0.

2.0 SCOPE OF THE PAPER

This section of the paper provides background on the various elements of the provincial government fiscal system, the local government fiscal system, provincial-local fiscal relations and the property tax assessment system. The intent is to delineate what is contained in this discussion and what is not.

2.1 The Provincial Fiscal System

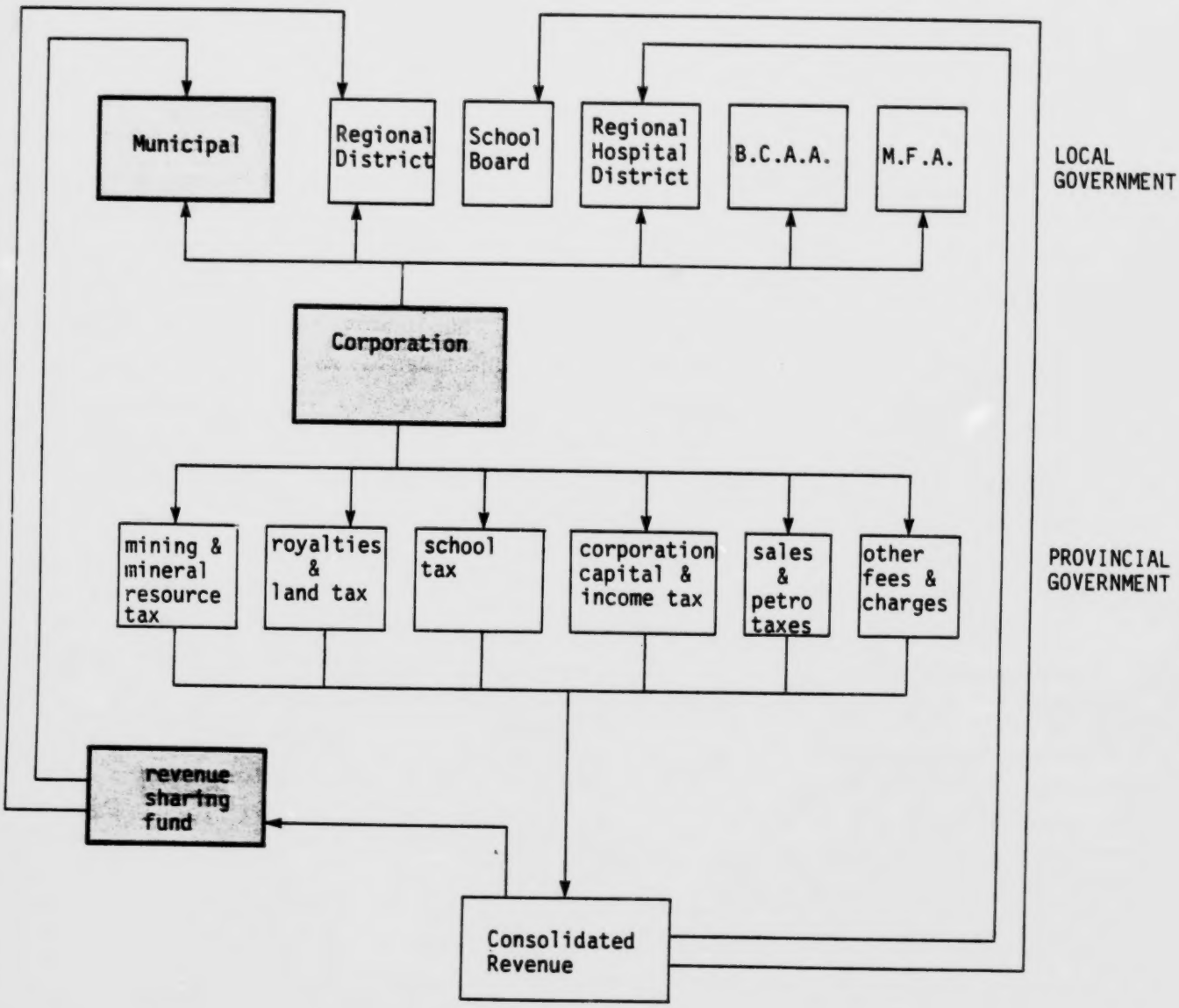
Municipal governments are one part of an overall provincial fiscal system. The Province is concerned with the gross allocation of economic resources to local government, the distribution of income and wealth and the stabilization of the provincial economy.

The subject of this paper is one component of the provincial system: provincial-local fiscal relations, the role of local governments and more particularly the municipal power to tax industrial property. At the same time, what this paper does not do should be emphasized. It does not deal with the appropriateness of the overall level of provincial taxation, the incidence on that taxation on industry in general or on particular industrial sectors (eg., mining, pulp and paper). The focus is on the advisability and principles for application of one tax -- the property tax -- by local government on industrial establishments.

2.2 The Local Government Fiscal System

The local government fiscal system has a number of distinct components: municipal governments; school boards; regional districts; hospital districts; and the Municipal Finance

Figure one: Provincial/Local Fiscal System as it affects a Resource Company



Authority. Each of these bodies is local in terms of having representation from communities and the regions of the province and each levies property taxes in order to pay all or a portion of its share of the costs for the services it provides. Each has an impact on the industrial sector and municipal government. The focus of the paper is on the municipal sector alone. The other elements of the local fiscal system are liable to be dealt with only in other forums.

2.3 Provincial/Local Fiscal Relations

The Province establishes the structure of local governments and provides them with powers to tax so as to provide services to their residents. The Province also ensures that the local government sector is allocated an appropriate share of provincial resources in order that it may carry out its responsibilities and that these resources are distributed fairly amongst local governments on the basis of relative need and capacity. The principal means for achieving this is revenue sharing through the revenue sharing programme. This paper does not examine the appropriateness of the revenue sharing programme in terms of its size or its method of distribution. The focus is on one method of financing municipal government services -- property taxation -- and its application to industrial enterprises.

2.4 The Property Tax Assessment System

The property tax system in British Columbia is based on market value assessment carried out by a provincial agency: the B.C. Assessment Authority. The objective of creating the Authority and instituting what can be called "administrative

market value assessment" has been to eliminate as much as possible administrative problems, taxpayer confusion and assessment appeals through a clear definition of the basis for assessment. A number of issues related to assessment such as the definition of "machinery" remain; however, they are of a technical, specialized nature and are not the subject of this paper.

2.5 Property Tax Economics and Property Tax Administration

As with most taxes, property taxes have effects on resource allocation. These effects stem from the fact that no property tax can be entirely neutral with respect to propensities to invest, save and work. Property taxes will affect choices regarding business inputs and the spatial location of households and firms. Choices made in the presence of property taxation will be different than choices made in the absence of property taxation. Economists agree that property taxes are not neutral. They also agree that, as a practical matter, the overall efficiency effects of the tax depend on whether distortions introduced by property taxation correct or exacerbate other distortions already existing in the tax system [Netzer, 1966, chap. IV].

It is important to differentiate between the economics of a tax and the administration of a tax. A perfectly administered property tax is inherently unneutral because it bears on some factor supplies but not others. This is an economic fact. The legal and institutional arrangements for levying and collecting property taxes are another matter. Administrative considerations may introduce additional unneutralities into the tax system or serve to correct for inherent unneutralities. For example, non-uniform property assessment would yield adverse neutrality effects over and above those

inherent to the tax; but particular problems with the disproportionate property tax burdens on railroads have often been corrected by administrative solutions [Due and Friedlaender, 1977, chap. 16]. The economics of a tax and the administration of a tax should not be confused. The central concern of this paper, the municipal boundary location decision, is primarily an administrative concern.

2.6 Conclusion: Narrow Focus on Municipal Taxation

This paper is narrowly focused on municipal property taxation as it applies to large-scale industrial enterprises. Municipal property taxation is merely one part of a complicated provincial-local fiscal system; and municipal property taxes are but one of a number of taxes levied by governments at all levels on industry. This paper stops well short of addressing the complete set of determinants of an industry's overall tax bill. This paper:

- does not deal with the appropriateness of the overall level of industrial taxation;
- does not deal with local taxation other than municipal taxation;
- does not address the soundness of present provincial/local fiscal relations; and
- does not canvass issues relating to real property valuation and assessment.

There are, instead, more limited aims, namely to examine the principles for the application of one tax, the municipal real property tax, on large-scale industrial establishments, and to consider the relationship between municipal boundaries and the taxation of such establishments.

3.0 MUNICIPAL BOUNDARIES AND THE TAXATION OF LARGE-SCALE INDUSTRIAL ENTERPRISES: THE CURRENT SITUATION

The current process for fixing municipal boundaries around urban areas has not produced a consistent pattern of taxation precedents relative to large-scale industrial enterprises. Most industries lying inside municipal boundaries are liable to taxation, usually at full municipal rates. In 1980, about 60% of British Columbian municipalities levied rates between 30 and 50 mills, and rates of 50 to 60 mills were not uncommon. In contrast, most industries lying outside municipal boundaries rest on the provincial tax roll and are liable to the provincial tax of only 12 mills. Some extra-municipal industries are also liable to small local service rates levied by regional districts. This inconsistent pattern of precedents has certain effects. These effects are considered from the perspectives of both communities and firms.

3.1 Muncipal Perspective

The pace of economic growth in the province has a number of determinants. A factor which is often overlooked is the supportive role played by urban policy*, which sets forth the framework for the province's local government system.

The province's urban policy outlines the conventional rationale for local government. The rationale is both political and economic. In economic terms, the most efficient

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* As used here "urban policy" means a loose collection of policies, procedures and precedents generally contributing to the make-up of the local government system and its role in the provincial economy; formal expression of "urban policy" in written statements or documents is not implied.

level of public services is achieved when local areas have full responsibility for providing the services desired by local residents and paying their full costs. Politically, local governments are better placed than senior governments to know the preferences of local residents and to judge their willingness to pay. Local governments, unlike senior governments, can vary service options, service levels and taxes to match the preferences and incomes of geographic sub-sets of the population. This explains why the Province does not attempt to standardize local services and taxes. Standardization does not exist because it is unwarranted and undesirable. Standardization of municipal services, in fact, would be highly inefficient [Redcliffe-Maud, 1969; Oates, 1972].

Local governments, then, are able to provide efficiently the local infrastructure and services needed to support economic development. Beyond this, the local government system contributes to the equity dimension of economic development by ensuring: a) that individual municipalities each have the same opportunity to meet the service and lifestyle aspirations of local residents; and b) that the costs of service delivery are fairly spread. The system also facilitates labour force mobility by ensuring that the relocation of workers is not impeded by excessive intermunicipal differences in tax levels or the quality of community life. Furthermore, local governments promote economic development by enhancing the livability of local areas. This is achieved through the creation and maintenance of safe, attractive, viable, self-governing communities. All told, four goals of urban policy contribute to economic development, namely efficiency, equity, mobility and livability.

The current regime of industrial taxation in British Columbia diverges in some respects from these economic development goals. Coal towns -- including Elkford, Sparwood, Fernie and Tumbler Ridge -- tend to be recipients of industrial taxation. A less even situation prevails for towns hosting base metal workers. Port Hardy, Granisle and Kimberley, for example, each enclose mines within their boundaries. But mines in the vicinity of Logan Lake, Ashcroft, Kamloops, Williams Lake, Houston and elsewhere lie outside town boundaries and are taxed by the Province. In the forest sector, most major enterprises lie within town boundaries, with the Port Mellon and Crestbrook pulp mills being significant exceptions. Trail and Kitimat contain Cominco and Alcan. Fort St. John and Taylor share the revenue from Petro-Canada's Taylor refinery but no Greater Vancouver municipality derives revenue from Ioco. Towns on the Peace and Columbia Rivers are unable to tax the major hydro-electric projects of B.C. Hydro. Cominco's power projects are taxable, however.

This patchwork pattern of precedents meets urban policy goals in some areas of the province but not others. In the Elk Valley area, for instance, the property taxation regime supports fiscally healthy local governments able to supply an adequate package of services at fair tax rates. Elsewhere, tax rates may be just as high but the package of services supplied is much smaller (Highland Valley). Intermunicipal differences in tax levels and the quality of community life do exist, and result in part from differences in the taxation of large-scale industrial enterprises. Attainment of the mobility goal is made difficult. Nor is the equity goal well served on a province-wide perspective. Equally circumstanced individuals do not necessarily receive the same value of public services for the same tax payment, partly because of differences in industrial taxation in different parts of the

province. Livability and efficiency goals are met fully in some areas only due to municipal fiscal capacity disparities.

3.2 Industry Perspective

Viewed from the community perspective, the siting of industrial enterprises sometimes inside, sometimes outside of municipalities leads to costs in the form of unmet urban policy goals. Viewed from the industry perspective, the inconsistent pattern of taxation precedents can also be observed. It may easily be demonstrated that inconsistencies exist between and within industrial sectors, probably leading to certain problems for industry as a whole.

Several examples of intersectoral discrepancies in the taxation of large-scale enterprises exist. In the forest sector, there is a reasonably consistent pattern of enclosing large (but not small) enterprises within municipal boundaries. This contrasts with the universal practice of excluding B.C. Hydro generation facilities from municipalities or exempting such facilities from municipal taxation. In the mining sector, the situation is more mixed: some major mines are taxable by municipalities and others not.

Perhaps more significant are intrasectoral discrepancies which appear to exist. Coal mines are universally taxable by their host municipalities. No such situation exists with respect to base metals. The Sullivan, Island Copper, Endako, Bell, Granisle and Granduc mines are taxed by their respective municipal jurisdictions; but the Lornex, Gibraltar, Brenda, Highmont, Afton, Bethlehem and Newmont mines, for example, are not since each lies outside municipal boundaries. Most petroleum refining and petrochemical plants are included within municipal boundaries but exceptions to this rule,

namely Ioco and the Fort Nelson gas plant, exist. Many large manufacturing concerns, notably the Alcan and Cominco smelters, rest on municipal tax rolls, but the large B.C. Cement operation does not. In the forest sector most pulp and paper mills are taxable by municipalities but witness this incongruity: the Woodfibre pulp mill is taxed by Squamish despite the lack of a road connection while the Port Mellon pulp mill is not taxable by Gibsons despite the existence of a road connection. The Crestbrook pulp operation near Kimberley is the sole provincially-taxed counterpart to Port Mellon.

Reviewing this situation, it is difficult to explain the intersectoral and intrasectoral inconsistencies which appear to exist. No simple proximity rule would yield the above pattern. For example, Fording Coal lies many kilometres from Elkford whereas Afton lies on the immediate boundary of Kamloops. Nor do geographical explanations exist. Woodfibre is physically unconnected with Squamish and both the Bell and Granisle mines lie across Babine Lake from the Granisle townsite. In each case the operations are taxed by the respective towns. Yet Bethlehem, Highmont and Lornex, none of which are within municipal boundaries, lie within easy reach of Ashcroft and Logan Lake.

Without delving any more deeply into the pattern of taxation of large-scale industrial enterprises, it is apparent that the conventional tax policy goal of horizontal equity -- equal treatment of equals -- cannot be met within the situation outlined. To the extent that municipal tax rates exceed rural tax rates, the siting of some enterprises inside municipalities and other otherwise similar industries outside municipalities leads to inequality in relative tax burdens. Furthermore, adverse neutrality effects are almost certain to exist. The property tax is inherently unneutral because of

its unequal impact on factor supplies: capital, labour and land. Once again to the extent that municipal tax rates exceed rural tax rates, it must be true that a differential burden bears on individual factor supplies depending on locale. This is bound to lead to at least some artificial resource reallocation which is unlikely to yield any social benefit. A final "cost" of inconsistent boundary setting is in the form of the uncertainty experienced by corporate planners. Rational and systematic investment analysis is made difficult in a situation where no clear indication of probable tax burdens can be gleaned in advance and no logical framework for negotiation exists.

3.3 Conclusion: The Need for Consistency

There are varying taxation precedents in British Columbia relative to large-scale industrial enterprises. Where you are in the province is likely to determine the tax burden an individual industry bears. In some areas the municipal tax rate usually lying in the range of 30 to 50 mills is applied to industry. In other areas, where boundaries are confined, the provincial tax of only 12 mills applies. No simple explanations were found for this pattern.

The "costs" of this inconsistent pattern are identifiable. From the municipal perspective the varying precedents have led in some areas to unmet urban policy goals. These goals aim to secure, or aid in securing:

- efficent service provision;
- equitable resource allocation, especially among municipalities;
- a mobile labour force; and
- livable communities.

Municipalities which differ in their ability to tax nearby industry will naturally differ in their ability to meet these goals. From the industry perspective certain goals can also be identified, namely:

- equal treatment of equals;
- neutral administration of the property tax system; and
- certainty.

The results of current practice diverge from each of these goals. Equals are unequally treated; administrative practices exacerbate the inherent unneutrality of the property tax; and uncertainty as to prospective tax liability prevails.

This discussion generates no simple or obvious conclusions about municipal boundary fixing procedures. It provides no rationale for including large-scale industrial enterprises within municipal boundaries; nor does it do the converse. This discussion does, however, suggest a need for greater consistency in setting municipal boundaries. Whatever property tax regime which exists should exist for all municipalities and industries in all parts of the province. In other words there is a need for one, province-wide set of rules, consistently applied to all industries and all communities.

4.0 THE ANALYTICAL FRAMEWORK FOR MUNICIPAL BOUNDARY AND TAXATION DECISIONS

The existing system for fixing municipal boundaries in the Province of British Columbia has been reviewed and found wanting in terms of a consistent set of principles applicable to all sectors and all communities. In a search for principles to guide boundary extension decisions this chapter provides an analytical framework in the form of a discussion of the three basic roles of a property tax. First, property taxes may be viewed as payment for benefits received from local government. Second, the property tax may be viewed as a means of allocating external costs back to their source. Finally, the property tax may be viewed as a general tax useful for financing certain local services, such as education, that are of such general benefit to society that individual benefits are impossible to determine. Each is examined below.

4.1 The Benefits Received Role of the Property Tax

In private sector market transactions, the "benefits received" principle is a generally applicable standard for setting a transaction price. This same principle can be used in the public sector to the extent that public services, like consumer goods, provide benefits which are divisible and can be allocated to individual residents as individuals or property owners.

Many of the services of municipal governments do, in fact, provide divisible and allocable benefits. Water and sewer systems transport water and waste to and from individual properties. Separate homes are protected by municipal fire departments and are built to adequate standards under the

scrutiny of municipal building inspectors. Solid waste may be removed on a regular basis. For municipal services such as these the benefits received criterion provides a suitable method for determining the level of taxes or charges. Taxes and charges should vary in relation to benefits received [Neenan, 1981].

A municipal government delivering services with fully allocable benefits has to choose between two methods of financing the service. One method is to resort to user charges; the other is to use the tax system as a substitute for user charges. User charges, in concept, are an ideal means of financing allocable services because payments can be matched directly with marginal benefits or marginal costs. User charges are in effect the prices that would be achieved in the private market.

In British Columbia, municipal legislation provides many opportunities to implement user charges. Perhaps most widely used are charges for water and sewer systems, services which only seldom are financed even in part through a general property tax. User charges are also prominent in the finance of services such as garbage collection, building inspection and recreation. Despite the wide-spread use of user charges, many economists advocate even greater extension of the concept to virtually all services provided by municipalities [Bird, 1976; Downing, 1977].

Two key drawbacks of user charges restrict their use in practice. One drawback is that not all municipal services are fully allocable to individuals. Parks and open space, for instance, are available for the enjoyment of one and all (unless fenced). That is to say some municipal services are of the nature of "public goods". The other drawback is the

administrative inconvenience and expense of applying user charges to every individual service. For these reasons, it has become common practice to use the tax system as a partial substitute for user charges.

When used as a substitute for user charges, taxes must still be responsive to differential benefits if it is hoped to maintain some semblance of equity and efficiency. The use of motive fuel levies as a substitute for highway tolls meets this criterion to the extent that consumption of gasoline equates with usage of and benefits from the highway system. In the context of municipal services the need for responsiveness to differential benefits means that not one but a number of benefit levies is likely to be needed. Given the widely differing characteristics of services typically supplied by municipalities it is highly unlikely that any single variable, such as property value, would be proportional to the benefits provided from all municipal services. Consequently, separate levies for individual services appear to be required, each using a suitable proxy for benefits received or costs imposed [Vickrey, 1963]. This explains why provincial legislation provides for several different types of benefit levy -- ad valorem, parcel and frontage -- each useful under particular circumstances.

The benefits received principle is a useful criterion for creating and evaluating tax systems. However, it cannot be used as a sole criterion; nor would it be desirable as a sole criterion. The "public goods" problem, mentioned above, prevents the application of this criterion on a universal basis. This is because the amount of benefit received by an individual from a truly public good is, by definition, unmeasurable. Furthermore, many services delivered by governments provide external benefits which a simple tax

system based on the valuation of immediate beneficiaries would inevitably ignore (pollution abatement is one such service). Finally, the benefits criterion cannot be used with respect to activities of government which have the objective of redistribution or which, like education and health care, should not be withheld from low income individuals simply for want of ability-to-pay.

4.2 The External Diseconomies Role of the Property Tax

The existence of externalities is one reason the benefits received priniciple cannot be universally applied in matters of government finance. An externality is said to exist when the production or consumption of something (a good or service) gives rise to benefits or costs to persons other than those directly involved. In this situation, private and social valuations of the particular item diverge and the benefits received principle breaks down as a guide to fair pricing or taxation.

An externality can be either "global" or "local", and of the two it is the global externality that is most relevant here. A local externality arises when the opportunity of one party to produce or consume something is affected by actions of a neighbour. In the case of a global externality, effects are not localized between neighbours. A global externality results from the collective actions of a class of persons, for example, suburban home owners. Pursuing this example, one global externality of the suburbs -- one social cost not accounted for in market land transactions -- is the excess cost of public transit to service sprawling, low density suburban subdivisions.

It is possible to imagine many different types of global externality associated with many different classes of land use in an urban area. The example of the suburbs has already been raised. Another example would be downtown business districts whose high density and commercial attractions might lead to the externalities of congestion: extra municipal costs for services such as traffic management and transit. (Recovery of congestion externalities, incidentally, is one of the prime rationales for the municipal business tax). Industrial land uses may also generate global externalities such as air pollution. Notice in this latter case that it is not necessary for there to be more than one industrial land user in a locality for a global externality to arise. The air pollution resulting from a single pulp mill, ie., a class of one, is a global externality since the effects are diffuse [Bossons, 1978].

This paper is not concerned with all global externalities but only those externalities generated by large-scale industries and experienced within the system of municipal finance. In this respect, the chief global externality of large-scale industrial enterprises is the additional urban development made necessary to house and service industrial workers and dependents. Consider this situation. A mill locates in a remote area of the province. The workforce is hosted in a municipality of, originally, 5000 persons. In-migration due to the operation of the mill raises the town's population by 50 percent. A number of effects are then witnessed:

- the town's services all expand to service more people;
- service quality levels change for better or worse;
- the town's budget and debt increase;
- the town's non-industrial tax base multiplies; and
- a new tax rate is struck to allow the town to balance its budget.

The global externality of the industrial land use, the mill, may in monetary terms be measured by the observed change in the tax rate, which may be positive or negative. A tax rate,

for instance, which rises on a sustained basis from 40 to 45 mills represents in concept a negative externality or diseconomy valued at 5 mills over the entire non-industrial tax base.

This concept of global externalities gives rise to the possibility of fixing municipal tax rates on different property classes in response to the identified externalities of that class. Notice that any tax rate thus set would be additional to and independent of any taxes or charges extracted due to benefits received [Bossons, 1981].

4.3 The General Municipal Services Role of the Property Tax

A third possible role for the property tax is its role as a general tax for financing the provision of genuine public goods, merit goods and income redistribution activities. These are all aspects of government finance where the benefits received priniciple is either unworkable, because benefits are not allocable to individuals, or undesirable, because it is believed that low income groups should have access to the good or service on the same basis as the wealthy. In place of the benefits principle, it is generally held that "ability-to-pay" is the appropriate equity criterion in this case.

Though important in the governmental system as a whole, only in a few cases do municipal governments provide genuine public or merit goods or participate i income redistribution. Deliberate income redistribution is essentially the policy preserve of senior governments. Local governments do produce merit goods to some extent but the chief locally supplied merit good, education, is delivered by school districts rather than municipalities. The municipal services which do seem inarguably to fit within this category of services are:

- general government services;
- some -- but not all -- aspects of policing, ie., the maintenance of order and security;
- public health and welfare services;
- the provision of public open space; and
- environmental development services.

Additionally, certain other services fall into an ambiguous category, often due to price inelasticity, and are usually financed by general taxation [Richardson, chap. 4]. In this category are services such as major roads and recreation.

In its role as a general tax the appropriate criterion for fixing appropriate tax payments is ability-to-pay. A fairly stormy body of literature has arisen over the equity of the property tax when evaluted on ability-to-pay grounds [Aaron, 1975; Bird and Slack, 1978, chap. 3]. One view of the tax holds that it is not borne by owners of property but is shifted forward to tenants (including owner-occupiers) and consumers; an alternative view is that the tax is borne by property owners and in fact is borne by owners of capital throughout the economy. In the one view the property tax is basically a tax on consumption of housing and is highly regressive while the alternative sees the tax as being distributed as capital is distributed throughout the economy (a U-shaped incidence pattern results). It turns out that both views of the tax are useful depending on whether the frame of reference is a particular municipality or the economy as a whole.

With respect to large-scale industries, the property tax as a general tax instrument must be evaluated in terms of its incidence on those persons who actually bear the tax. The corporation is merely an intermediary. The tax must in some fashion be borne by owners or shareholders or be shifted to employees or customers. The incidence of the property tax on a particular industry is not easy to determine and it is even

more difficult to make interindustry generalizations. The circumstances of the firm, particularly the structure of factor and product markets and relative capital mobility, is likely to influence the amount of tax shifting which occurs. These problems add to the general debate about property tax incidence referred to above. The incidence of general property taxes on industrial property is in fact so problematic as to lead some radical analysts to argue that such taxes should be abolished. That is, taxes on industries which are in excess of amounts necessary to pay for benefits and compensate for externalities, to these analysts, should be severely curtailed [Bossons, 1981; Thirsk et al, 1982].

As far as is known, however, no Canadian jurisdiction is contemplating the abolition of industrial property taxation. Making radical tax changes has seldom been found appealing, whether viewed economically, politically or from the perspective of the subjects of taxation. The virtue of the property tax as an identifiably local and easily administered tax are difficult to impugn. Certainly the property tax, as an institution, shows no sign of going away. It remains as a significant element of the provincial-municipal tax system in all provinces in Canada [Kitchen, 1982]. In any event, consideration of this aspect of property taxation is completely outside the limited tax administration focus of this paper.

4.4 Conclusions: The Three Roles of the Property Tax

The property tax may have up to three sharply distinctive roles within a system for financing municipal services. It may serve alongside user charges as recompense for divisible and allocable benefits received; it may compensate for global

externalities; or it may serve as a general tax for financing general municipal services. Key features of the municipal property tax are summarized in Figure Two:

Figure Two: Analytical Framework for Examination of Municipal Property Taxation

Role of Property Tax	Application	Criteria For Tax Imposition	Type of Tax
benefits tax	services which are divisible and allocable to individuals	benefits received or costs imposed	user charges or benefit levies (ad valorem, parcel, frontage)
externality compensation	"global" urbanization diseconomies	identified diseconomies	general property tax or payment
general tax	public and merit goods and income redistribution	ability-to-pay	general tax

This discussion serves as the analytical framework for considering both the boundary decision and the tax rate decision in successive chapters.

5.0 THE BOUNDARY DECISION: RATIONALE FOR MUNICIPALIZATION OF LARGE-SCALE INDUSTRIAL ENTERPRISES

This paper's analytical framework is used to consider the boundary question: whether and under what circumstances municipal boundaries should be extended to include large-scale industrial enterprises. As indicated above property taxes may have up to three different roles in a municipal fiscal system. Given these three roles, this section questions whether an appropriate relationship between municipalities and large industrial enterprises can be embodied in the instrument of the property tax. An answer in the affirmative to this question will be taken to be an unequivocal rationale for inclusion of large-scale industrial enterprises within municipal boundaries.

In this section conditions simplifying the analysis are imposed. There is one province containing one industry lying in rural territory adjacent to a sole community. Provincial and municipal servicing responsibilities are as in the real world. Industrial workers and their dependents are hosted and serviced within the community. In Chapter 7.0 below, the one industry/one community condition is relaxed permitting an analysis of more true to life circumstances.

5.1 Perspectives on Boundaries

Various perspectives are extant on the boundary question. This is obvious from the preceding review of the current situation regarding industrial taxation in the province. It is apparent that advocates exist for both municipalization and, if you will, ruralization of industrial properties. Thus we have examples of industries lying inside and outside

municipal boundaries. Some industries are taxable for municipal services by municipalities. Other industries are taxed for corresponding services -- road maintenance, for example -- by the Province.

Note that the current situation shows examples only of municipalization and ruralization. These terms are used expressly to convey the notion that property tax payments are connected with the production and finance of municipal-type services, services such as policing, road maintenance, tax administration and so forth. A third perspective on boundaries exists wherein the connection between municipal-type services and property taxation is broken. There are advocates for what is called the provincialization of industrial properties. This amounts to fixing a single industrial taxation boundary coincident with the boundary of the province as a whole. The provincialization perspective views industrial properties as properly a component of the provincial tax system to be exploited alongside income taxes, resource taxes and other provincial taxes. This perspective on the boundary question constitutes a fundamental reappraisal of the industrial property tax.

5.2 The Boundary Decision

The provincialization perspective on the boundary question is fundamental. It must be disposed of first. The paper then returns to the local level and addresses the municipalization question. This chapter deals with the boundary question independent of tax rate, tax sharing and administrative concerns, each of which are detailed in succeeding chapters of the paper.

5.2.1 Provincialization

Provincialization of the industrial property tax base has been argued on two grounds: as a palliative for tax exporting and as a preventative of tax windfalls. Provincialization is sometimes, but not necessarily, associated with the earmarking of collected revenues for return to the local sector by means of provincial grant redistribution programmes. Property tax exporting is peculiar to the property tax on nonresidential property. The theory is that taxes are exported from one jurisdiction in the guise of higher product prices to purchasers located in other jurisdictions, the essential problem being "taxation without representation" [Thirsk et al, 1982]. Property tax windfalls are considered to arise when industrial tax payments by an industry to a municipality are out of all proportion to benefits received.

Neither argument is convincing. The tax windfall argument is in part a non sequitur, in part addressed by the Province's revenue sharing programme and in part not a question of boundaries. It is a non sequitur to the extent that only some municipal services are provided on a benefits received basis. The notion of being "out of proportion to benefits" is meaningless relative to other dimensions of municipal finance. Childless homeowners, for example, do and ought to pay for playgrounds they do not use, just as industries should contribute toward general municipal services. The Province's revenue sharing programme is to some extent designed to adjust for differences in municipal fiscal capacity and therefore should tend to minimize any tax windfall effects which might exist. Finally, it is possible for tax windfalls to arise only through the selection of inappropriate industrial class percentages used by the Province to convert actual value to assessed value. As such the windfall argument is not a

boundary question at all but a question of the appropriate class percentage.

In connection with tax exporting, the prevalence of which is not known, intermunicipal fiscal equalization programmes now in place offer a solution or a potential solution to the problem. The main intermunicipal equalization programme is revenue sharing, a programme in part designed to minimize departures from average tax-gathering potential or fiscal capacity. A by-product of intermunicipal equalization is the tendency to correct for tax exporting. Evaluation of intermunicipal fiscal equalization as a correction for tax exporting may be warranted; but provincialization of the industrial tax base would be a particularly extreme response to a problem whose magnitude is unknown. Provincialization cannot, therefore, be recommended.

5.2.2 Municipalization

No convincing argument has been uncovered which would justify immediate provincialization of the industrial tax base. This leaves only municipalization and "ruralization" in contention. This paper now seeks to answer whether an appropriate relationship between municipalities and large-scale industrial enterprises can be embodied in the instrument of the property tax. Each role of the property tax will be examined in turn.

Benefit taxation. Examination of the role of property taxation with respect to municipal services which are fully allocable to individual residents yields an argument, although a weak one, in favour of inclusion. The argument is essentially as follows. Inclusion within municipal boundaries would facilitate the delivery and financing of any of the municipal services needed by industry for which the benefit

principle does not contradict usual notions of equity. Of course many large-scale industrial properties require few of such services and choose instead to be self-sufficient. They supply their own water systems, waste removal services and pollution abatement facilities. This does not in itself contradict the argument for inclusion since, to the extent that municipal fiscal systems adequately incorporate user charges and/or benefit levies, even totally self-sufficient enterprises could not be mistreated by inclusion: total charges and levies in this instance should be nil. Inclusion would still facilitate the delivery of services that may be needed and inclusion is advisable to that extent.

Many industries have complained that inclusion within municipal boundaries leads to a situation of having to pay for benefits not received. While this may be true there is no easily accessible body of evidence to support -- or debunk -- this proposition generally. What can be said, however, is that <u>if</u> an industry is being unfairly taxed in this regard, the real problem lies not with the location of the municipal boundary but with the structure of the municipal fiscal system giving rise to the unfair charge. Amending boundaries would be a simplistic response to the problem. Far superior would be to examine the extent to which user charges and benefit levies are used to finance allocable benefits and rectify any shortcomings found.

<u>Externality compensation</u>. A much more compelling rationale for municipalization of industrial enterprises emerges from a review of the role of property taxation in compensating for global externalities. Except in cases where industrial workers are housed in remote camps (Dupont, Baker Lake) or in company townsites (Alcan, Kemano), it would only be an extraordinary accident if the siting of an industrial

enterprise beside a municipality did not have some effect on the rate or level of urbanization. In turn, a change of this nature would almost certainly have some effect, whether positive or negative, on the municipality's fiscal accounts. Indeed, this is proven by the several studies completed over the past years regarding the fiscal impact of large-scale industries on British Columbian towns [B.C. Hydro, 1981; Petro-Canada, 1981; MMA, 1982].

In simple terms what is being said is that any town playing host to workers from a new or significantly expanded industrial operation is likely to be changed by that fact. Its services will expand; service quality levels will probably alter; and the tax base will multiply. All these changes together, ie., the total impact of urbanization, will in all likelihood change the town's mill rate. This can be seen as the global externality of the enterprise. The key point is that the certain existence of this urbanization effect yields a clear message that industrial enterprises ought to be included under the jurisdiction of host towns. By so doing, a secure and straightforward mechanism is created for the provision, where necessary, of compensatory payments from the enterprise to the town.

General tax. The final role of the property tax is a general tax for services which are typically supplied on an ability-to-pay basis. Examination of this aspect of taxation once again supports municipalization of industries.

In connection with general municipal services, to challenge the municipalization of industries is really to challenge industrial property taxation altogether. Such challenges have indeed been made over the years. But in light of the obvious durability and importance of industrial taxation in the

province -- not only for municipal general services but for education and hospital construction -- it is evident that the challenges that have been mounted have floundered. The reason for this is the lack of an obvious, administrable, locally-controlled alternative to the general property tax. It is not enough to criticize the industrial property tax: a suitable substitute must be found.

Each of the main candidates as a replacement for general industrial property taxation has serious flaws. A value added tax (VAT) was proposed by the 1976 Commission of Inquiry on Property Assessment and Taxation. VAT was not, however, suggested as a substitute for general nonresidential property taxation but merely as a replacement for the business tax and for the tax on machinery and equipment. Morever, by its very nature, a value added tax could not be locally administered. Finally, the constitutionality of a provincial VAT can be questioned. In no sense, then, can value added taxation be considered a prime candidate for replacing general industrial property taxation.

Other replacement taxes which might be considered, and are used in other jurisdiction, include local sales taxation and income taxation. True local sales taxes have a number of defects, primarily border distortions and high compliance costs. In California a local sales tax is administered by the state on behalf of local areas. This minimizes neutrality and compliance defects but at the cost of effectively "de-localizing" the tax. To de-localize the sales tax is to diminish the perceptibility of the tax, thereby reducing local accountability. Compared to the "discipline of the mill rate", this is an important defect [Neenan, 1981].

Local income taxation -- and this means localized levy and collection -- is often touted as a substitute for general property taxation, and is widely used as such in the United States and Scandanavia. Local corporate profits taxes and payroll taxes have also been examined. There are two key problems. The first problem is the very real administrative problems of local income taxation; but here some analysts, while not minimizing their importance, at least venture that with sufficient effort and resolve these problems can be overcome [Layfield, 1976; Neenan, 1981]. Even so, adopting a local income tax is problematic due to the great transition costs and income redistributions that radical tax changes inevitably entail [Bossons, 1981; Zodrow, 1981]. This raises a real question whether there exists sufficient will on the part of policy makers to implement radical tax reform of this sort, and sufficient willingness on the part of taxpayers to accept it. Certainly, calls for local income taxation are not prominent in Canadian tax reform literature.

These considerations go some distance toward explaining the durability of the industrial property tax. In view of the problem of obtaining a suitable substitute for industrial taxation, it becomes a simple matter of policy that all forms of real property, including industrial property, should be subjected to local property taxation for general services. Consistency arguments demand that this rule apply equally to all municipalized properties.

5.2.3 Ruralization

It has been concluded that municipalization of industrial assets is generally warranted. Of course, this should only be done where a fiscal impact of the enterprise on the

municipality can be demonstrated. If there is no measurable impact on a municipality or if no host municipality exists then municipalization is not appropriate. For example, if industrial workers are housed in a company town, ie., a community financed, developed and operated by the resource company with no local self-government, then municipalization should not be considered. Cassiar, Kitsault and Tasu are towns in this category. Nor should municipalization be considered where industrial workers are housed in remote camps, such as at Dupont's Baker Lake mine. In both company town and remote camp situations, "ruralization" of industrial assessment may be perfectly acceptable.

5.3 Conclusion: Municipalization of Industrial Enterprises

The property tax can be viewed in three different guises: as a benefits tax, as externality compensation and as a general tax. It has been found that an appropriate, indeed indispensible, link between municipalities and large-scale industrial enterprises can be embodied in the instrument of the property tax. This is unequivocally true with respect to the role of property taxation in providing externality compensation and recompense for allocable benefits, if any, received. This is also true in principle with respect to the general taxation role of the property tax given the apparent inability to find a suitable substitute for general property taxes levied on large-scale industries. "Ruralization" of industrial properties is acceptable only in company town and remote camp situations where industrial enterprises have no discernible fiscal impact on a municipality. No convincing rationale was uncovered for provincializing the industrial tax base.

6.0 THE TAX RATE DECISION: THE NEED FOR CONSISTENT MUNICIPAL TAX RATES

In principle, it is possible and indeed desirable that large-scale industrial enterprises be municipalized and be subjected to municipal taxation. No convincing argument has been uncovered for provincializing the industrial tax base. On the contrary, industries usually have localized effects on municipal services and therefore ought to be locally taxed. Industrial property owners, like all other property owners, must also contribute towards the finance of municipal general services by way of local property taxation. But at what rate should municipalities tax industry? At the full municipal rate? Less than the full municipal rate? These questions are now addressed.

The text following deals with the tax rate decision at the municipal level. That is, the discussion concerns the fixing of the nominal municipal tax rate. This is the usually uniform rate struck annually in the municipal budget bylaw. The nominal tax rate must be sharply distinguished from the effective tax rate, the tax rate expressed in terms of actual property value. Nominal rates are a function of assessed property value. Assessed values and actual values differ by virtue of the class percentages or conversion ratios selected annually by the Province for each of nine property classes*. Class percentages varied from 10% to 80% in 1982. Given this differentiation of class percentages, it may be seen that while nominal tax rates are uniform, effective tax rates are non-uniform, across property classes.

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* Not all municipalities use the provincially determined class percentages. Nevertheless, this discussion applies to all municipalities because all municipalities must follow the standard nominal tax rate procedure just described.

6.1 Perspectives on Rate Setting

Naturally enough there are various perspectives on the question of choosing an appropriate tax rate for municipalized industries. Industries have a persistent fear that, by virtue of municipalization, they will be taxed for municipal property services they often, and obviously, do not receive. Some observers have argued for outright exemption from tax payments for such services. Others believe that industrial properties should be liable for the general municipal tax rate but be relieved of the burden of the municipal debt rate. Still others have advocated fixing the maximum rate for municipalized industries at the prevailing rate, now 12 mills, fixed by the Province for application to the non-municipal tax roll.

A number of concerns give rise to the multiplicity of views on the rate setting question. One concern is that to tax industry is tantamount to providing a "tax windfall" to the affected municipality. B.C. Hydro's brief to the 1976 Commission of Inquiry on Property Assessment and Taxation stated that to make Hydro liable for taxation would lead to tax levies "quite out of proportion" to costs imposed [Ex. 73]. Another concern is the possibility of "tax gouging". For example, the Mining Association before the same commission worried about municipal proclivities to "load the cost of local services against the mining company" [Ex. 191].

The perceived need for economic stabilization and economic development gives rise to a third view on rate setting. It is believed by some that taxing authorities have an obligation to adjust tax rates from time to time, especially at times of economic recession, to provide a stimulus to or tax relief for productive enterprises.

The academic community has also identified a concern about the tax on nonresidential properties. It is believed that the nonresidential property tax for municipal general services may give rise to so-called tax exporting. Tax exporting occurs when taxes in one jurisdiction are rolled into the cost function of the nonresidential enterprise and are then, in effect, exported to other jurisdictions in the guise of the higher prices charged for goods and services. The criticism of tax exporting is that it amounts to "taxation without representation". This argument has been used to justify setting nonresidential general tax rates at zero [Thirsk et al, 1982].

6.2 The Rate Setting Decision

The analytical framework of chapter 4.0 is once again used, this time to unravel the rate setting problem. The property tax may have up to three distinct functions in municipal finance and the rate setting question is therefore addressed in three parts. A fourth concern emerges from the discussion and is also addressed.

6.2.1 Benefits Tax

With respect to direct benefits received by individual property owners, it has been pointed out that user charges are in concept an ideal means of finance. User charges in effect are the prices that would be set if the services were traded on the private market. Consequently user charges allow direct matching of payment with benefit, thereby maximizing economic efficiency. Benefit levies are also used to finance direct services. Benefit levies can be a suitable and effective substitute for user charges where the latter are too expensive or too difficult to apply. Provincial legislation allows the

use of three different types of property tax in its benefits role: the ad valorem tax, the parcel tax and the frontage tax.

User charges and benefit levies are the appropriate means of addressing industry's concern about paying for services that industries often do not receive. This problem would never arise if an adequate system of user charges and/or benefit levies existed. To what extent British Columbian municipalities actually have an adequate system of benefit charges and levies is not known. Considerable variation can be expected, however. Very clearly there are wide differences of opinion about the suitability and practicality of benefit charges and levies [Bird, 1976]. Additionally, municipalities which differ in size, resources and management style can be expected to differ in the capability and willingness to implement complicated financial systems. Finally, the Province has opted, on local autonomy grounds, not to interfere in the exact structuring of municipal fiscal systems either directly, through regulation, or indirectly, through the publication of technical guides to the design of charges and levies.

The Ministry of Municipal Affairs should consider affirmative action in this sphere: sponsoring research on the design and implementation of benefits charges and levies and issuing its fundings by way of a technical guide or guides. This action could be expected to improve and lessen the variation in the application of charges and levies among municipalities [ACIR, 1974].

6.2.2 General Tax

With respect to the property tax as a general tax, there are really two issues. First, within any municipal budget, the

amount of general tax required is partly a function of the yield from benefit charges and levies. The greater the yield, the less the general tax rate. Therefore, on equity and efficiency grounds, municipalities should always attempt to maximize the revenues from these sources. Ultimately, however, the second and more fundamental issue arises: how should the general tax burden be shared and what in particular should be the tax rate for industry? Some advocate applying the full nominal tax rate; others advocate applying less than full rate; still others argue for fixing the tax rate at zero.

The argument for general tax exemption for industry is false or at best unconvincing and a valid argument for partial exemption does not exist. Therefore: with respect to general taxation, large-scale industrial enterprises ought to be taxed by municipalities at the full nominal tax rate.

Dealing first with the full exemption argument, recall that the argument stems from criticism over the tax exporting that nonresidential general taxation can engender. The extent of the problem has never been measured in this province. Regardless, one appropriate solution to the tax exporting problem is to create a system for intermunicipal fiscal equalization. Intermunicipal equalization is a process of correcting for differences in municipal fiscal capacity or tax-gathering potential through the distribution of provincial cash grants. An intermunicipal equalization programme exists in British Columbia, being the Province's revenue sharing programme. If tax exporting exists, the problem may already be solved. Thus, while research on the measurement of fiscal capacity and an evaluation of revenue sharing as a corrective for tax exporting can be recommended, tax exemption for industry cannot [Harman, 1977; MMA, 1981b].

Concerning partial tax exemption -- setting industrial taxes lower than the full nominal rate -- it may be said that no valid argument exists for this position. Partial tax exemption cannot logically be argued on benefits (not) received grounds. In the role of the property tax as a general tax, the benefits received principle is just not an appropriate guide for taxation. General taxation is imposed on taxpayers irrespective of perceived individual benefits.

Partial tax exemption might also be argued as an answer to tax windfall and tax gouging problems. The windfall argument has already been shown to be partly meaningless, partly resolved by revenue sharing and partly a question outside the realm of municipal tax responsibilities (section 5.2.1). The argument fails to justify partial tax exemption. Concerning tax gouging, the essential point is that municipalities do not have uninhibited scope to engage in the practice. General tax rates must be uniform across property classes. No property or class can be singled out for special treatment. Moreover, some protection of industrial enterprises obtains from the fact that municipal budgets are controlled, at times overtly through initiatives such as the Municipal Expenditure Restraint Act, at times merely through routine scrutiny by the Inspector of Municipalities. This argument, too, fails to convince.

A final argument for partial tax exemption emerges from consideration of the objectives of economic stabilization and development. It is argued that pursuing these objectives, particularly during recessionary periods, means the granting of local tax relief. However valid these objectives are, it must be seen that these are objectives of broad provincial significance which ought to be financed from broad provincial revenue bases. It would, in fact, be most inappropriate to saddle particular groups of local taxpayers with the financial

burden of province-wide objectives. Moreover, the granting of relief from municipal property taxes would not be particularly effective. For most industries, municipal taxation probably accounts for less then 10% of total taxes. The economic stabilization/development rationale for partial tax exemption thus falters.

In the absence of any other rationale for granting partial tax exemption, this position is reduced, simply, to a call for rights to negotiate one's nominal tax rate. This clearly would violate the long-standing "impersonality convention" of taxation and would be difficult to accept.

6.2.3 Externality Compensation

Turning to the third and final role of the property tax, its role in compensating for global externalities, it is observed that in all but extraordinary circumstances the tax rate decision is simple, transparent and uncontroversial. The appropriate rate setting rule can be expressed as full nominal rate for all. But from time to time a complication arises in the form of global externalities associated with certain classes of land use. Central business districts, for example, may result in congestion externalities; the business tax can be used for recompense. With respect to the industrial land class, the concern is with the general urbanization externality almost certainly associated with new or significantly expanded industrial enterprises. The discussion of this matter is best handled through a concrete example, the externality calculation for Tumbler Ridge.

Prior to its inception, Tumbler Ridge was the subject of intensive research. A financial plan based on a computer-simulated municipal budget was developed. The financial plan

established that if "desired" service levels were to be provided and if "fair" tax burdens were to be achieved for homeowners, then the Tumbler Ridge budget might not break-even during the initial years of the town's life, even with full municipal taxation of the minesites [MMA, 1981a].

Out of this analysis emerged the concept of the "shortfall". A shortfall is the present value of the amount needed to balance a town's budget over a multi-year period while maintaining fair tax levels. In the terminology of this paper a shortfall is equivalent to the urbanization diseconomy or global externality associated with industrial development. The identification of the shortfall and calculation of its magnitude led to the establishment of a contingency fund to the credit of Tumbler Ridge and ultimately to be financed by the resource companies involved [ELUCS, 1980; MISBD, 1982].

Succinctly stated, at Tumbler Ridge it was demonstrated that taxation of the resource companies at the full nominal rate might be insufficient to sustain fair municipal tax rates, and provision for externality compensation was therefore made. The conclusion is: in extraordinary circumstances provision must be made for some kind of externality compensating contribution from new or significantly expanded industrial enterprises to host towns. At the same time, it is recognized that caution should be exercised here: externality compensation should not be seen as a technique for redressing past inequities or grievances.

6.2.4 Sub-Classification

It is clear that the identification of a budgetary shortfall at Tumbler Ridge came about for a highly particular set of reasons: the size of the resource development; the capital

investment of the companies ($1.1 billion); the expected workforce (1500 workers); the type, scale and pace of urbanization resulting; the municipalization of the resource company properties; and the particular class percentage (28.6%) for industrial property prevailing at the time. The conjunction of all these factors produced the urbanization diseconomy identified.

Observe that another set of factors might produce a different result. Consider a taxable petrochemical plant located outside a larger, established town having an enormous assessed value and employing, say, 100 workers. It is conceivable, though not certain, that this situation could result in an urbanization economy or positive externality. This situation seems to imply the need for some form of reverse corrective.

The situation sketched can be restated as follows. The industrial property class is widely divergent as to type: different products, different production methods and so on. A key difference is the relative amount of taxable capital investment per direct employee, ie., the capital intensity ratio. Moreover, different industries will burden different towns each to a different extent. If all industries were muncipalized, some means of dealing with the possibility of negative and positive externalities ought to be found.

Given all of the contributory factors to the fixing of effective tax rates, and certain other factors, it is recommended that the industrial property classification be sub-classified for the purpose of setting annual class percentages. The diversity of industrial enterprises in terms of capital intensity ratios -- and consequently in terms of expected municipal fiscal impact -- is simply too great to justify retention of a single class having one, uniform class

percentage*. Further research would be required to establish an appropriate sub-classification structure but it is believed that as few as four or five categories would suffice.

The sub-classification recommendation does not, in concept, fully resolve the apparent problem. The apparent problem appears to require the selection of a discrete percentage for each industrial property. This in turn implies local determination of class percentages or provincial determination of hundreds of local class percentages. Either approach, though conceptually ideal, would clearly be intolerable. The sub-classification recommendation is entered as a pragmatic compromise between the present situation and the conceptual ideal. As a compromise: it will roughly correct for the positive externality problem; it will sustain consistent provincial control over class percentages; and it will cause no disruptions to the enunciated principles for municipal taxation of large-scale industries. It is the simplest and most expedient method of dealing with a genuine problem.

6.3 Conclusions: Full Rate Plus

Let us accumulate the various conclusions and suggestions that have been put forward. The chief conclusions are:

- for general municipal services, large-scale industrial enterprises ought to be liable for taxation at the full nominal municipal rate; and
- in extraordinary circumstances provision must be made for some kind of externality compensating contribution from new or significantly expanded industrial enterprises to host municipalities.

Other suggestions or recommendations, less central but still important, are also made. Benefits would be gained from research on the design and implementation of user charges and

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* This argument holds for municipal taxation; it does not necessarily apply to school taxation.

benefit levies and the issuance of research findings by way of a technical guide to benefit charges and levies. Research on the measurement of municipal fiscal capacity and an evaluation of revenue sharing as a corrective for tax exporting is warranted. Sub-classification of the industrial property class for class percentage purposes should be investigated and implemented if technically feasible.

7.0 THE DISTRIBUTION DECISION: TAX SHARING BETWEEN COMMUNITIES

Previous chapters have considered the boundary decision and the tax rate decision. Implicitly these chapters have assumed the existence of one industry and one host community. It has been established that the property tax is an appropriate and indispensible link between the industry and the community.

In this chapter the one industry/one community condition is relaxed. The case typical of many intensive resource areas of the province is considered: several industrial enterprises may lie in close proximity to a number of towns. In this situation the institutional arrangements for linking the industries with the communities become complex. The industries may collectively consume the services of each of the towns. More importantly the urbanization externalities associated with the industrial sector are likely to be spread among all of the adjacent local jurisdictions at once. This chapter considers the complexity of the multi-industry/ multi-community case and sets forth a case for interjurisdictional tax sharing.*

7.1 Reasons for Tax Sharing

The most fundamental question with respect to the concept of sharing is: where is it justified? It should be emphasized that the sharing problem is not a universal problem but is a characteristic of a finite number of regions in the province. The following text lists some characteristics of these regions.

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* "Tax sharing" means any method of distributing tax revenues from industries to municipalities. Three particular tax sharing concepts will be discussed.

a. The industrial assessment base is massive in relation to the non-industrial base. For example, coal mine properties in the Elk Valley account for 65% of the combined assessed values for general purposes of Elkford, Sparwood and Fernie.

b. The industries have large workforces in relation to employment within the community, generally in ratios of two to one. Furthermore, the workforce is scattered between communities. For example, Highland Valley miners may live in any of five different towns.

c. The fiscal impact of the industrial operations is felt primarily, though not excusively, through municipal services delivered to resident workers rather than to the minesites. That is, the global externalities of the operations are particularly significant.

d. The direct fiscal impact of the workforce is finite, being limited to the communities within the commutershed of the industrial enterprise. Secondary effects may, however, be felt more widely.

e. The development of large scale industrial enterprises brings extraordinary capital costs for facilities and infrastructure, the costs of which are amortized over an extended time period.

f. Finally, the communities affected are generally small and have low infrastructure tolerances. Even small population increases must be responded to with additional investment in facilities.

These features indicate the extraordinary nature of this problem and that only certain regions of the province can reasonably be considered as candidates for industrial tax sharing. Many types of property, even residential property, may have interjurisdictional impacts. Tax payment patterns may diverge from service consumption patterns. But the mere existence of such distortions does not justify implementation of a tax sharing scheme. It is the magnitude of the distortion which is important.

The sharing question is not simple. There are a number of complex issues that need to be discussed. These include: the need for consistency between regions and various industrial sectors; the merits of global versus local schemes; the beneficiaries of sharing; the merits of alternative concepts of tax sharing; and various methodologies for distributing tax sharing proceeds. Each is considered below. First, however, the current situation in the province is reviewed.

7.2 The Current Situation

Tax sharing between municipalities in the province is not new. It is recognized in the Municipal Act and has been implemented in at least four different regions.

The Village of Taylor and the City of Fort St. John share the tax revenues from the Petro-Canada refinery in Taylor. Fort St. John receives 50% of the first 20 mills levied by Taylor. The City of Prince Rupert and the Village of Port Edward share the tax revenues from the Ridley Island Port with the first $25,000 shared equally; the direct costs of municipal servicing are deducted and the remainder is shared in the ratio of 80% Prince Rupert, 20% Port Edward. In the Trail-centred region, a scheme for pooling selected service

costs from five municipalities has been designed. Once pooled these services are financed on the area-wide hospital tax base. A more complicated scheme has been implemented in the Elk Valley. It allows for the District of Sparwood, District of Elkford and the City of Fernie to share in the tax base of five coal mines on the basis of a defined set of factors. As well, there is a special transitional provision which allows the regional district to cover existing commitments to the unincorporated settlement of Hosmer.

Other regions of the province share the same characteristics as those above and yet do not have tax sharing arrangements in place. The Lornex, Bethlehem and Highmont mines exist and the Valley Copper mine is proposed. The impact radius of these mines includes Kamloops, Cache Creek, Ashcroft, Merritt and Logan Lake plus several electoral areas. The combined industrial tax base dwarfs the non-industrial tax bases of each of the communities, save Kamloops. Here again, as in the Elk Valley, tax payment and service consumption patterns would seriously diverge if the mines were simply placed on the assessment roll of the nearest community. In all relevant respects, the situation in the Highland Valley is identical to that in the Elk Valley.

The Crestbrook Forest Industries pulp mill, located at Skookumchuk, is within commuting distance of Cranbrook and Kimberley. About 80% of the 300-member Crestbrook workforce resides in one or the other of these municipalities. The Alcan workforce is domiciled partly in Terrace. Brenda Mines' workers commute to Peachland, Kelowna and elsewhere. The Utah Mines workforce is shared among several northern Island communities and electoral areas. This list is not exhaustive but is indicative of the generality of the problem faced.

Evidently, tax sharing has not been implemented consistently between regions and between sectors. Some regions and sectors have arrangements for sharing; other deserving regions and sectors do not. It is clear that there is a need for clear principles to guide the implementation of tax sharing schemes.

7.3 Tax Sharing Concepts

Tax sharing is a generic term for several different types of tax sharing schemes. These alternative schemes are now introduced and discussed.

7.3.1 Global versus Local Tax Sharing

A "global" tax sharing scheme would be province-wide in scope. A local scheme would involve only towns directly affected by particular industrial enterprises. Global schemes have been advocated on general redistribution grounds in the past [Alberta, 1976].

The creation of a global tax sharing scheme is not warranted. The principles enunciated in prior chapters confirm that municipalization of industrial enterprises is warranted: localized effects require a direct connection to local tax systems. The mere fact that several adjacent communities may jointly bear the effects of industrialization does not contradict these principles.

7.3.2 Primary versus Secondary Effects

A critical issue is the question of the geographical extent of the effects of an industrial project and, consequently, the geographical limits to the beneficiaries of a sharing scheme. The primary or direct municipal fiscal effects of a large

industrial project are limited and finite. The effects extend only to the communities within the commutershed of the enterprise, ie., only to those communities from which workers commute. The commutershed is limited in size and is quite measurable. Secondary effects, however, may be felt quite widely. For example, Cranbrook is outside the Elk Valley commutershed but may feel secondary economic effects. Yet Cranbrook should have no claim to tax proceeds destined for the municipal sector from the Elk Valley mines. To the extent that Cranbrook is affected, it is affected by secondary investment. This secondary investment would normally be taxed by the city and the city would be suitably compensated for additional services provided. It is the primary fiscal impacts which matter and the primary impact radius is of finite size.

7.3.3 The Beneficiaries of Tax Base Sharing

A major question concerns who ought to benefit from a sharing scheme. A portion of the workforce may reside in municipalities while the remainder may live in rural areas. As a consequence, more than one level of government bears the impact: the Province and possibly the regional district will be responsible for delivering a number of local services to workers residing in unincorporated areas. In theory the jurisdiction which bears the impact ought to receive the benefits of a sharing scheme. In practice, however, it can be argued that the Province and the regional district should not share in the benefits. Previous research has indicated that rural residents currently pay a flat 12 mill tax to the Province but receive close to 30 mills of provincial services, including roads and policing, which residents of most municipal jurisdictions pay for themselves. Furthermore, when the rural residents live immediately adjacent to a

municipality in a so-called fringe area there may be a "free-loader" problem: rural residents receive the benefits of municipal services without paying for them.

Consequently, it can be argued that to build the Province and the regional district into a sharing scheme would exacerabate the current inequities between municipal and non-municipal areas. The provincial objective is to discourage development of urban fringe areas and encourage municipalization. At the same time, if there are situations where the institution of a sharing scheme would have an identifiable impact on a regional district which delivers local services to rural areas, then for equity reasons an appropriate transitional scheme should be developed. This was the case in the Elk Valley with respect to Hosmer.

7.3.4 The Mechanics of Sharing

Three basic approaches to sharing can be described as

- bartered property sharing;
- localized revenue sharing; and
- pooled tax base sharing.

Each varies in terms of the object of sharing and flexibility. Note that this section deals with the mechanics of sharing but not the basis for distribution, an issue considered in section 7.4 below.

In the simplest version, bartered property sharing, the municipalities would simply divide industrial properties between them on some arbitrary basis. In the Elk Valley, for example, Sparwood and Fernie could agree to enclose one or more mine properties within Fernie's boundary while other mine properties would be enclosed within Sparwood. This is the cleanest and simplest approach. However, it does not allow for variation to reflect differing expenditure needs or fiscal

capacities or even the sizes of the mine assets themselves. At present there is no known precedent for this approach.

A more common approach, localized revenue sharing, is used to allow Prince Rupert/Port Edward and Fort St. John/Taylor to share in the revenues from particular industrial assets. This involves the asset being enclosed within the boundaries of one of the two municipalities and an agreement being struck as to the basis for sharing the tax revenue for the particular assets. A mill rate is established for the asset, the host municipality levies the tax and the yield from the assessment is then "pooled" and redistributed to each of the partners.

"Pooled tax base sharing" differs from the previous approaches in that the assessment base itself is shared between the participants by creating an industrial assessment "pool". The Elk Valley of the province is presently the only precedent for this type of scheme. A sharing formula has been established based on the relative proportion of the workforce which lives in that community modified by relative expenditure needs and fiscal capacity.

The scheme generally works as follows. The assets of each of the five mines are enclosed within the boundaries of two of the three municipalities -- Elkford, Fernie and Sparwood -- participating in the scheme. The industrial taxation base is pooled. Each municipality proceeds to establish budgets in the normal fashion. The "assessment pool" is allocated to each of the participants on the basis of a sharing formula. Each municipality strikes its individual mill rate taking into account its expected yield from shared assessment. The "yields" of each of the municipalities is then pooled. The tax administrators -- the two municipalities which enclosed industrial assets -- then strike a single, uniform mill rate to be levied on the industrial assessment pool. Finally, the

proceeds are redistributed to the participants according to their individual tax yield. The scheme is quite complex but it does provide considerable flexibility and hence is better able to fulfill the intentions of the scheme.

In conclusion the bartered property sharing approach should be rejected. The localized revenue sharing and pooled tax base sharing schemes are equally flexible in fulfilling the intentions of the scheme.

7.4 How Taxes Should Be Shared

7.4.1 Objectives

It has been concluded that a tax sharing scheme which is localized, focused on primary effects of the enterprise and directed at municipalities is preferred. With respect to what is shared either a localized revenue sharing scheme or a pooled tax base sharing scheme is preferred. However, this decision is independent of decisions on how resources are shared. There are a number of different approaches to sharing and these can be evaluated in relation to two objectives: equity and administrability.

The basic objective is equity or fairness: the sharing scheme must recognize that communities in different circumstances should be treated in a way that reflects basic differences between communities. Equity has a number of important dimensions:

- **accuracy in relation to costs:** the key element is the cost of providing services to industrial workers and their families. The municipality that must spend the greatest amount to service industrial workers and their families deserves the greatest share of industrial assessment. The distribution method that reflects cost factors with the greatest accuracy is the preferred choice.

- **ability-to-pay:** another important element of equity is ability-to-pay. The better off a town in a financial sense, the more it should be willing to aid poorer towns. Therefore, the poorer the town, the greater the share of industrial assessment it deserves. In turn, the more sensitive a method is to a town's financial well-being, the more it is preferred.
- **responsiveness:** a third element of equity is responsiveness to growth and change. The cost impact of industrial workers and their families is dynamic rather than static. It differs from year to year. A distribution method which is sensitive to these changes is preferred over one that is not.

Not only must the distribution scheme be equitable it must be administrable or easy to use in practice. Administrability involves costs of a different sort. Distribution methods based on easily obtained and indisputable data are preferred. Methods which are difficult to understand and involve complex calculations are not preferred.

7.4.2 Distribution Concepts

A number of different approaches that can be taken to distribution are discussed below and are evaluated in the context of the two objectives of equity and administrability. It should be noted that a choice between distribution approaches is quite independent of whether localized revenue sharing or pooled tax base sharing is selected. These approaches are applicable to both.

Geographic approach. The geographic method assigns assessment to towns according to proximity to the industrial site. The closer the town, the greater its share of assessment. This approach is not acceptable from an equity perspective although it is relatively easy to administer. It is highly inaccurate because, in practice, workers do not choose a home town strictly on the basis of commuting distance, especially in

situations where more than one town is within easy reach. The geographic method is unresponsive to changes in workforce distribution, since only distance counts. No account of ability-to-pay is taken. This method would lead to demonstrably unfair results.

Town population. Resources are assigned on the basis of town population: the larger the town the greater the assignment of resources. It is an inequitable approach. It is oblivious not only to the cost impact of workers but to the very distribution of workers as well. No account of ability-to-pay is taken. It would lead to demonstrably unfair results.

Fiscal impact: workforce location. This approach delivers resources in proportion to the fiscal impact of the primary workforce on the host communities. In the workforce location variant the fiscal impact of the primary workforce on the host communities is assumed to be proportional to the residential distribution of the workforce. This differs from a geographic approach by using an observed rather than assumed residential distribution pattern. This approach is acceptable from accuracy, responsiveness and administrability perspectives. However, the workforce method fails to take account of the great cost differentials that may exist among municipalities. This approach divides assessment strictly in proportion to the distribution of the workers. A town with 50% of the workers gets 50% of the assessment, irrespective of the fact that service delivery in some towns is far more expensive than in others. Towns in high cost areas will be seriously disadvantaged by this method compared to both of the cost sensitive methods described below.

Fiscal impact: municipal cost. This approach to fiscal impact is similar to the workforce location variant except

that the fiscal impact of the workforce is determined by measurement or estimation techniques and benefits to host communities are delivered accordingly. This device requires that the residential distribution pattern and the fiscal impact of the workers be known.

The first concept is that municipal cost is somehow related to the number of workers who reside in a community. That is, it is likely to cost more to service 1000 workers and dependents than to service 500 workers and dependents. On the other hand, for a number of reasons, most beyond human control, the cost of an identical package of services may be different in different towns. Thus, the burden of 500 workers in Town A may be greater than 500 workers in Town B. Therefore, included in this formula is the concept of the per capita variation in the standardized cost of services between communities.

In theory this is a simple approach but in practice there are problems in making intermunicipal comparisons. Within the municipal field it is difficult if not impossible to arrive at a set of universal service standards. Furthermore, it is not desirable to have universal standards because it is in the nature of local government that the mix and extent of services should vary to reflect varying local preferences. Finally, it is difficult to achieve consensus on a limited set of core services which can provide a definitive basis for comparison. As a consequence of this, it is necessary in practice to fall back on an intercommunity comparison of total municipal expenditures. More research on expenditure patterns may throw further light on this issue.

This variant of a fiscal impact approach is more desirable than the workforce method in terms of its accuracy in reflecting the costs the workers impose on a community, while

still maintaining responsiveness to change and a high degree of administrability. This method does not correct for relative differences in ability-to-pay between communities.

Fiscal capacity: cost and assessment. The concept here is that a preliminary allocation based on fiscal impact is determined. Then, a final allocation is determined by adjusting the preliminary allocation with reference to selected measures of fiscal capacity. The fiscal capacity approach is thus an extension of the fiscal impact approach. It focuses not only on costs but on fiscal capacity or tax-gathering potential. Note that property assessment is the common, albeit partial, measure of fiscal capacity in British Columbia.

The fiscal capacity approach is most acceptable from an ability-to-pay perspective. The per capita fiscal impact of workers hosted by two towns may be equal. But under certain conditions it may be more difficult for one of the towns to absorb the additional costs. The fiscal impact approach ignores differences in carrying capacity; the fiscal capacity approach takes these differences into account.

The method seems complicated but in reality it is a combination of the workforce method and the cost method, and adds to these methods a simple measurement of fiscal capacity. Hence, it is administrable. Because it includes municipal cost information it is accurate. The assessment adjustment does a reasonable job of adjusting for relative ability-to-pay. Furthermore, it is responsive to change in the number of workers residing in each town. There are no serious administrability drawbacks, and the only minor and unavoidable problem is the lag in the application of municipal cost information.

7.5 Evaluation of Current Tax Sharing Schemes in the Province

This section evaluates three existing sharing schemes in the province. First, the scheme is described as to what is shared, eg., bartered property sharing, localized revenue sharing or pooled tax base sharing. Second, the scheme is classified according to the distribution concept, eg., geographic, town population, workforce location, etc. Finally, the sharing scheme is evaluated according to the criteria of accuracy, ability-to-pay, responsiveness and administrability.

7.5.1 Taylor/Fort St. John

In 1975 the first sharing scheme in the province was instituted. The Village of Taylor and the City of Fort St. John entered into a "localized revenue sharing" agreement to share revenue from three industries: Petro-Canada (oil refinery), WestCoast Petroleum and WestCoast Transmission (gas scrubbing). These are enclosed within the boundaries of Taylor. The Letters Patent of Taylor require it to share 50% of the first twenty mills of tax revenues received from the general municipal purposes tax levied on the industries with Fort St. John. The Village's debt retirement levy does not apply to the industrial properties. Furthermore, it should be noted that Taylor can and does levy taxes above the 20 mill levy but does not share these with Fort St. John.

The distribution scheme is administratively simple but it does not appear to meet any of the equity criteria. The share is fixed at a percentage which would not seem to bear any relationship to the costs workers impose on the respective communities or the relative abilities of the two communities

to pay those costs. Hence, it does not reflect accuracy and ability-to-pay criteria. Furthermore, the fact that a percentage is written into the Letters Patent does not provide the flexibility to change the shares in response to changes in circumstances (eg., relative municipal costs or ability-to-pay). Furthermore, no provision for review is made. Finally, two aspects of the agreement may be exceptionally inequitable: the exclusion of the industrial properties from the debt levy and the limiting of Fort St. John's share to 10 mills.

7.5.2 Prince Rupert/Port Edward

In 1980 a "localized revenue sharing" agreement was implemented between the City of Prince Rupert and the Village of Port Edward. It provides for the sharing of the tax revenue received by Prince Rupert from its levy for general municipal purposes on the Ridley Island port. The basis for sharing is as follows. The first $25,000 of revenue is shared equally. All costs attributable to municipal servicing within the extension area are then deducted from the remaining tax revenue and become revenue of the municipality providing the service. Finally, the remainder is shared in the ratio of 80% to the City of Prince Rupert and 20% to the Village of Port Edward. The Letters Patent provide that the apportionment will be reviewed three years after the first year of levy of taxation on improvements and thereafter at five year intervals.

In terms of describing the distribution concept it is in part a "fiscal impact: municipal cost" and a rough populaton based approach. The scheme is administratively simple. However, with the exception of the provision for the recovery of direct municipal cost of site services and the requirement for a review of the apportionment, which meet the accuracy and

responsiveness criteria respectively, this scheme does not reflect equity concerns particularly well. The agreement does not provide for an accurate reflection of costs or ability-to-pay except insofar as the 80/20 split achieves equity.

7.5.3 Central Kootenay

Five municipalities in the Regional District of Kootenay -- Trail, Rossland, Fruitvale, Montrose, Warfield -- have agreed in conjunction with Electoral Areas "A" and "B" to have the regional district provide five basic services on a specified area basis. The costs of the five services -- transit, cemetary, refuse disposal, airport, recreation and cultural services and fire protection -- are to be apportioned among the participating member municipalities on the basis of assessment for hospital purposes. Although this scheme is not explicitly a tax sharing scheme, it has the same effect. In particular the extensive assets of Cominco in Trail, the core city, are made taxable by the smaller satellite communities surrounding Trail at least to help them pay for the five functions. Furthermore, machinery and equipment is taxable under this scheme, thus providing a much larger tax base than would otherwise be the case.

The scheme is administratively simple. It is responsive to the extent that the cost apportionment for targeted services is adjusted annually in the local budget process. However, it is unresponsive to the extent that only targeted services and not the full range of municipal services is considered. Because the actual fiscal impact of the industry on the host towns is not measured, the scheme does not meet the accuracy criterion. Finally, no attempt is made to adjust for relative ability-to-pay.

7.5.4 Elk Valley Tax Base Sharing Agreement

Elk Valley Industrial Tax Base Sharing was established in 1981. It is a "pooled tax base sharing" approach and as a distribution scheme it uses the "fiscal capacity" technique. The Province, the Districts of Elkford and Sparwood and the City of Fernie have agreed to pool all existing and future mines plus associated works within a shared tax base pool and have entered into an industrial property tax base sharing (ITBS) agreement. This unique agreement provides a method for equitably sharing mine property tax assessment among the three towns, thereby correcting serious distortions in tax base distribution which hitherto existed. The objects of the agreement are the Elk Valley coal mines operated by B.C. Coal, Byron Creek Collieries, Crows Nest Resources and Fording.

The ITBS intermunicipal agreement performs several functions. Most importantly, the agreement sets forth the details of the tax base sharing scheme. A secondary purpose of the agreement is to define transition arrangements which will permit the gradual introduction of the ITBS scheme over a number of years.

Once the ITBS scheme is fully operational, each municipality's share of coal company assessment will be governed by a combination of factors, the most important of which -- by far -- is its percentage share of total mine sector workforce (Figure three). In other words, a town hosting 50% of the total Elk Valley mining workforce would, before adjustments, receive a 50% share of total coal company assessment.

When the ITBS scheme is fully operational, a tax base sharing formula will be employed to calculate the allocation of mine company assessment among the three towns. The calculation

Figure three: The Elk Valley Industrial Tax Base Sharing Agreement Formula

$$\%\ \text{Share}_n = \left[\frac{A_n \ B_n}{\sum (A_n \ B_n)} \right] \times 100$$

where A_n = workers residing in town n

$B_n = C_n \left(\frac{D}{E_n} \right)$ = adjusted per capita expenditure

C_n = per capita expenditure for town n

D = average per capita non-shareable assessment for all towns together

E_n = per capita non-shareable assessment for town n

provided that:

$$\left(\frac{A_n}{F} \right) - 0.02 \leq \frac{A_n \ B_n}{\sum (A_n \ B_n)} \leq \left(\frac{A_n}{F} \right) + 0.02$$

where F = total workers residing in all towns together, and $\sum$ means the sum of any particular factor for all municipalities.

will be performed annually by the Ministry of Municipal Affairs using continually updated data. For the purpose of the ITBS calculation, all mine company assessment will be included within a shared tax base pool prior to allocation.

Each municipality's share of the tax base pool will be a percentage calculated annually under the ITBS formula. The intent of the formula is to establish for each municipality a "basic percentage" derived from workforce residential distribution data, and to adjust this basic percentage up or down according to relative per capita municipal expenditure and non-shareable assessment.

The Elk Valley scheme scores well on the evaluation criteria. It provides a reasonably accurate measure of costs on urban areas. It provides for adjustment for both extraordinary expenditures and for varying abilities-to-pay. It is highly responsive to changing circumstances. Finally, it is reasonably easy to administer. If any criticism can be made, it has to do with the sophistication of the approach to measuring costs and fiscal capacity. The Ministry should undertake further developmental work in this area.

7.6 Conclusions: Fair Sharing of Industrial Taxes

The previous sections of the paper have argued for municipalization of large-scale industrial enterprises: assets should be enclosed within the boundaries of the municipality which houses the workforce. This section deals with a particular complication to the simple one industry/one town case. In many areas the pattern is more complex. Several industrial assets may be in close proximity to a number of towns and may collectively consume or affect the services of several towns. This is not a universal problem

but one characteristic of a number of resource regions in the province. It has been concluded that there is a need for industrial tax sharing between municipalities in these regions. This is not a new problem. In fact there are precedents for tax sharing in the province. However, the approaches to sharing are inconsistent both between sectors and between regions. As a consequence a set of principles to guide the creation of tax sharing schemes is required.

It has been concluded that an appropriate sharing scheme should be: focussed on primary effects of the project workforce and not the secondary effects; directed at municipalities as the primary beneficiary of the sharing scheme; and be based on either "localized revenue sharing" or "pooled tax base sharing". It has been reaffirmed that a localized as opposed to a global or province-wide sharing scheme is preferred as best meeting the principles ennunciated in chapters 5.0 and 6.0.

The basic objectives of a sharing scheme are equity and administrability. Equity means fairness and implies that the distribution scheme must consider a number of factors: accuracy in reflecting the municipality's costs in accommodating workers; sensitivity to in varying abilities-to-pay of municipalities; and responsiveness to community growth and change. Administrability means ease of operation, clarity of approach and simplicity of calculation. Five approaches to sharing were outlined. One, the "fiscal capacity" approach, is preferred. It is administratively simple and it is highly accurate. More importantly it deals effectively with the impact of the workforce on a municipality, the relative costs of each municipality in accommodating the workforce and their ability- to-pay. The "fiscal impact: workforce location" and "fiscal impact:

Figure four: Evaluation of Distribution Concepts for Tax Base Sharing

	Distribution Evaluation Criteria			
method	accuracy	ability-to-pay	responsiveness	administrability
geographic	poor	poor	poor	good
population	poor	poor	poor	good
fiscal impact: workforce	fair	poor	fair	good
fiscal impact: costs	good	poor	fair	fair
fiscal capacity	good	good	fair	fair

municipal cost" approaches are acceptable but not preferred. Two approaches, geographic and population, should be rejected as not meeting equity criteria. These conclusions are reinforced by a review of current tax sharing schemes in the province. The Elk Valley Industrial Tax Base Sharing Agreement is clearly superior to the other proposals and should be the model for further such schemes in the province. Further research and developmental work can be undertaken by the Ministry on approaches to measuring impact and fiscal capacity.

8.0 THE IMPLEMENTATION DECISION

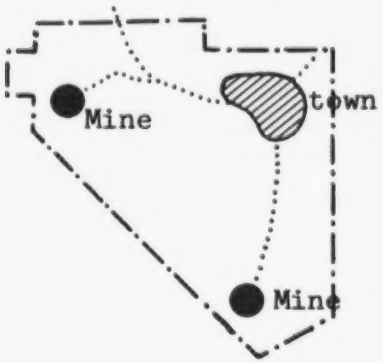
A number of issues which arise with respect to municipal boundary extensions can be described as implementation issues. Each of these -- the description of the boundary, the resource land use management implications of the boundary, the community development implications of the boundary and the procedures for implementing boundary extensions -- is discussed below with respect on whether these issues provide evidence to conclude that industrial establishments should or should not be enclosed within municipal boundaries.

8.1 The Geographic Location of the Boundary

The difficulty of arriving at sensible boundaries in a geographic sense is put forward as a reason for not enclosing industrial establishments within municipalities. This argument is raised where the industrial establishment is some distance from the municipality. This situation has been faced in the past and solutions have been devised.

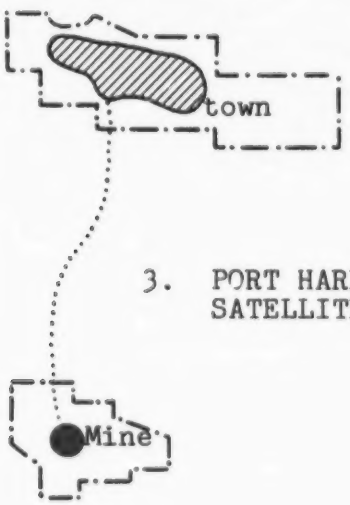
Three approaches have been employed. In some cases, particularly where the industrial sites are dispersed, the municipal boundary has been drawn quite widely to enclose the asset. Such was the case for the District of Tumbler Ridge. A "satellite incorporation" whereby the industrial asset is enclosed within the municipal boundary but without it physically being connected with the larger portion of the municipality was the approach taken for Elkford (Fording Coal), Fraser Lake (Endako Mines) and Port Hardy (Island Copper). In other cases an "umbilical cord incorporation" which provides a physical connection with the municipality has been the preferred method. This approach was utilized for Gold River (Tahsis Corp.) and Squamish (Woodfibre).

figure five: Alternative Approaches to the Geographic Location of Boundaries to Enclose An Industrial Asset



1. TUMBLER RIDGE: LARGE BOUNDARY

2. GOLD RIVER: EMBILICAL CORD



3. PORT HARDY: SATELLITE

● - industrial operation

▨ - settled area

—·—· - municipal boundary

····· - road

It can be concluded that there are no geographic boundary definition problems which absolutely limit the ability of municipalities to enclose industrial assets within municipal boundaries. No preference between the three methods described above can be stated in the abstract. Choice of an approach depends on the particulars of an individual industry or municipality and consideration of the implications of the extension for resource management, community planning and community services.

8.2 Resource Management Considerations

It is often argued that municipal boundary extensions to enclose industrial assets will lead to conflicts between the Province's resource management responsibilities (eg., forests, mineral resources) and local government's responsibilities for local services and land use regulation. This issue is often misunderstood by provincial agencies, local government and the private sector. It is unequivocally clear that the Province has prime responsibility for resource management. While local governments have been delegated the responsibility to plan and regulate private land, the enabling legislation for municipal planning (Part 21 of the Municipal Act) explicitly states that municipalities have no jurisdiction over provincial forests or tree farms. The constraints on municipal intervention in other areas of provincial interest, such as minerals, gravel and petroleum resources, may not appear to be quite so specific as they are generally established by judicial decision. However, provincial legislation clearly establishes these as Crown resources, the extraction of which cannot be regulated by local government. Clearly, therefore, resource management considerations do not automatically preclude the municipalization of industries.

At the same time, however, it is important that the possibilities for local and provincial misunderstandings be minimized. In the absence of legislative change, such as mandatory review of all Official Community Plans, the following are suggested as possible means to that end:

- Restraint in the drawing of municipal boundaries would minimize opportunities for conflict. In this regard satellite incorporations are clearly superior to the other two alternatives because the area is enclosed within the boundaries can be restricted to the assessable assets.
- Formal review processes can ensure that provincial interests are considered in the making of decisions on municipal boundary extensions. The Ministry of Municipal Affairs could assist in the co-ordination of this review.
- The municipality could be directed through the Letters Patent facilitating the boundary extension to prepare an Official Community Plan to be approved by the Province. This was the approach utilized for Tumbler Ridge.

Any or all of these suggestions would minimize conflict.

8.3 Community Planning Implications

The development of a new industrial establishment outside the boundaries of a municipal boundary may lead to pressures for land use change along the road between the municipality and the plant. Where this is expected to lead to inefficient rural residential development or an "urban fringe" problem there is a need for a more broadly drawn boundary or for land use policies jointly determined by local government and provincial agencies. Again the fear of municipal land use controls is not a sufficient reason not to enclose an industrial plant. There are practical solutions which are likely to be satisfactory to the municipality, the company and the Province.

8.4 Community Servicing Implications

A further argument for opposing municipal boundaries relates to community servicing. If the boundary extension encloses a

number of rural residents within the municipality they may demand an extension of urban services and the municipality may feel itself obliged to do so at great cost. If the municipality does not extend services there may be resentment about "urban taxation without urban services". This is not an argument against extensions but an argument for careful consideration of the implications of boundary extensions. There are two ways out of this predicament. An urban service area and a rural service area each with their own level of service and mill rate could be established. Alternatively the boundary could be drawn to exclude rural residents.

8.5 Procedural Considerations

A number of issues have been raised which relate to the process of municipal boundary extensions. Industrial interests have questionned whether the existing notice provisions are adequate in ensuring that industries receive sufficient information on boundary extension proposals. The provisions in the Municipal Act should be examined to see whether they could be improved in terms of procedural justice or fairness.

8.6 Conclusion: Implementation is Feasible

It can be concluded tht there is no implementation issue which precludes the municipalization of industrial establishments. The implementation issues focus on the particulars of a given boundary extension and not the boundary extension question in general. The Ministry of Municipal Affairs could assist in the resolution of implementation issues by developing a systematic and comprehensive process for reviewing municipal boundary extensions.

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Appendix A-1: Municipal Taxation of Industrial Establishments: Precedents by Sector

A. Metal Mines

	Operation	Location
1.	Island Copper	Port Hardy
2.	Cominco: Sullivan	Kimberley
3.	Canada Wide Mines	Stewart
4.	Noranda: Granisle	Granisle
5.	Noranda: Bell	Granisle

B. Coal Mines

1.	B.C. Coal: Balmer	Sparwood
2.	Fording	Elkford
3.	Crows Nest Resources	Sparwood

C. Smelting

1.	Alcan	Kitimat
2.	Cominco	Trail

D. Pulp & Paper

1.	Northwood Pulp	Prince George
2.	B.C. Timber	Prince Rupert
3.	B.C. Forest Products	Mackenzie
4.	Eurocan Pulp and Paper	Kitimat
5.	Western Forest Products	Squamish
6.	MacMillan Bloedel	Powell River

E. Wood Products

1.	Fraser Lake Sawmills	Fraser Lake
2.	Northwood Pulp and Timber	Houston
3.	MacMillan Bloedel	Port Alberni
4.	CanFor	Chetywnd

F. Petroleum

1.	B.A. Oil Ltd.	Port Moody
2.	Gulf Canada	Kamloops
3.	Petro-Canada	Taylor

G. Chemical

1.	Hooker Chemical	Squamish
2.	FMC Canada	Squamish
3.	Reichold Ltd.	Port Moody

Appendix A-2: Provisions of the Municipal Act Respecting Municipal Boundary Extensions

Extension of boundaries

22. (1) On the recommendation of the minister, the Lieutenant Governor in Council may by supplementary letters patent extend the area of a municipality to include land not in a municipality.

(2) Before making his recommendation the minister shall have received from the council a request for the extension, or notify the council that he intends to recommend the extension. In either case the council shall give public notice of the proposed extension, once in the Gazette and in not less than 2 consecutive issues of a newspaper circulating in the municipality.

(3) The council may, or shall on receipt of the request of not less than 1/10 in number of the electors received within 30 days of the last publication of the notice, submit the question of the proposed extension to the electors for assent.

(4) If the minister is of the opinion that there is substantial opposition to the proposed extension by the residents in the area proposed to be included, he may direct that the question of including the area sought to be included in the municipality be submitted in the form prescribed by him to the residents of the area for assent.

1965-28-12; 1968-33-12; 1973-133-6

Redefinition of boundaries

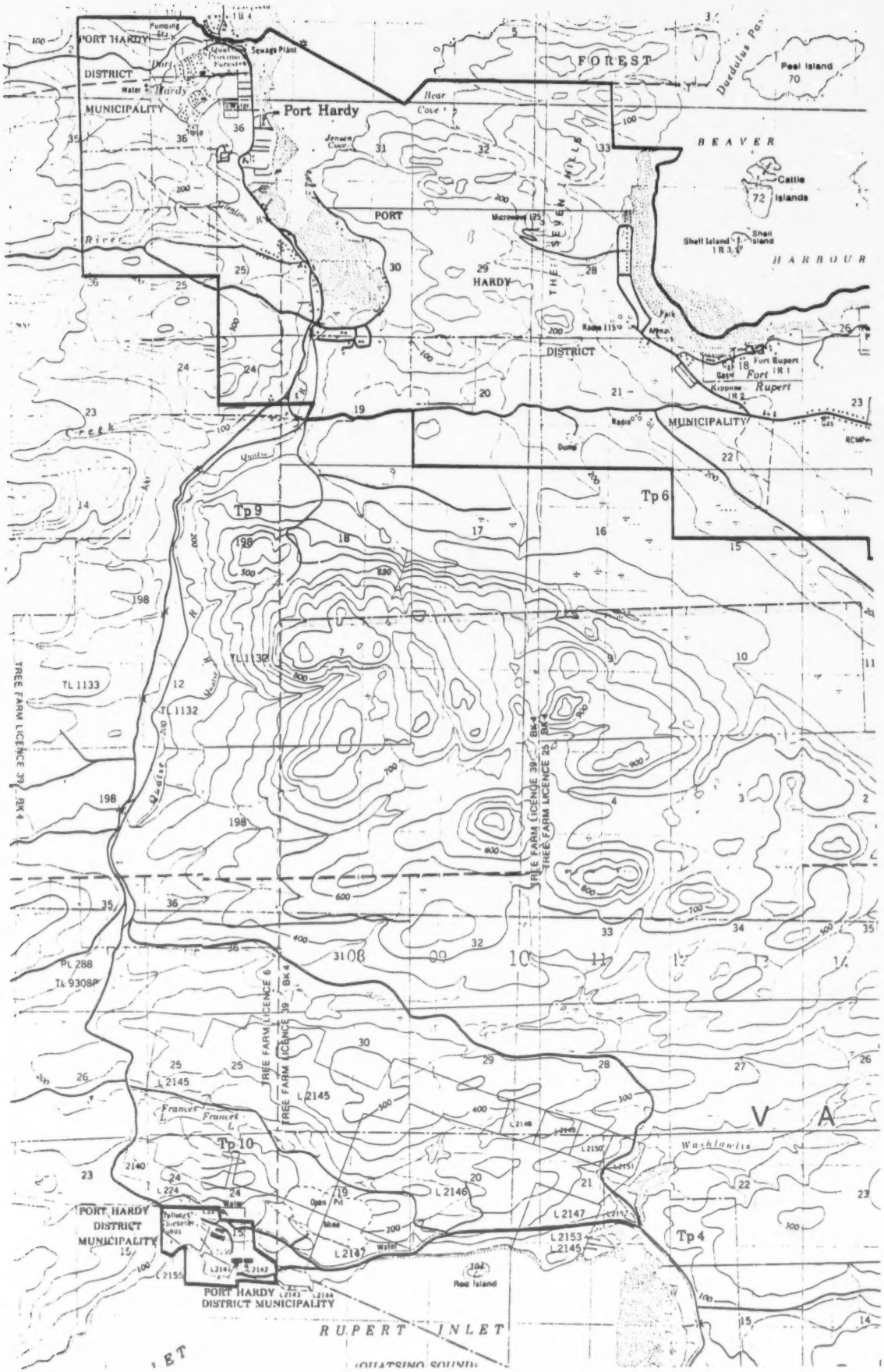
23. (1) The Lieutenant Governor in Council may by supplementary letters patent redefine or alter the boundaries of a municipality where to his satisfaction it appears that

(a) uncertainty exists in the boundaries;
(b) the boundaries do not follow legal property boundaries;
(c) the boundaries do not conform to those of an adjacent municipality;
(d) the whole or part of a highway on or adjacent to the boundary should be included or excluded;
(e) the whole or part of adjoining foreshore and any area below low water mark should be included or excluded;
(f) the whole or part of the adjoining foreshore along a river, stream or lake, or the foreshore and land covered by water, should be included or excluded;
(g) land adjacent to and owned by the municipality should be included.

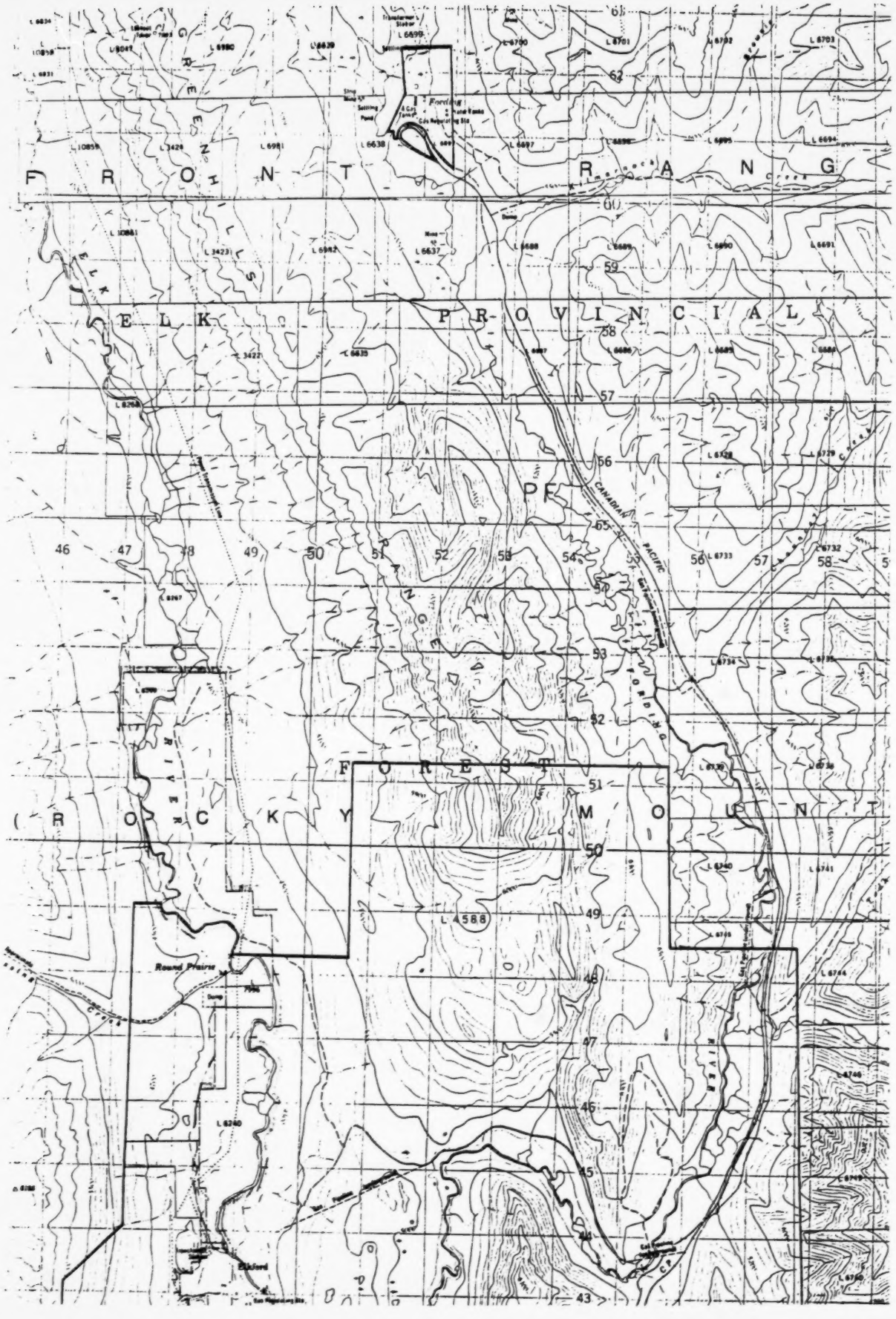
(2) Before exercising the powers of subsection (1), the Lieutenant Governor in Council may direct that a notice of intention to redefine or alter the boundaries of a municipality be given at municipal expense once in the Gazette and once in a newspaper circulating in the municipality.

RS1960-255-22(1,2); 1968-33-13

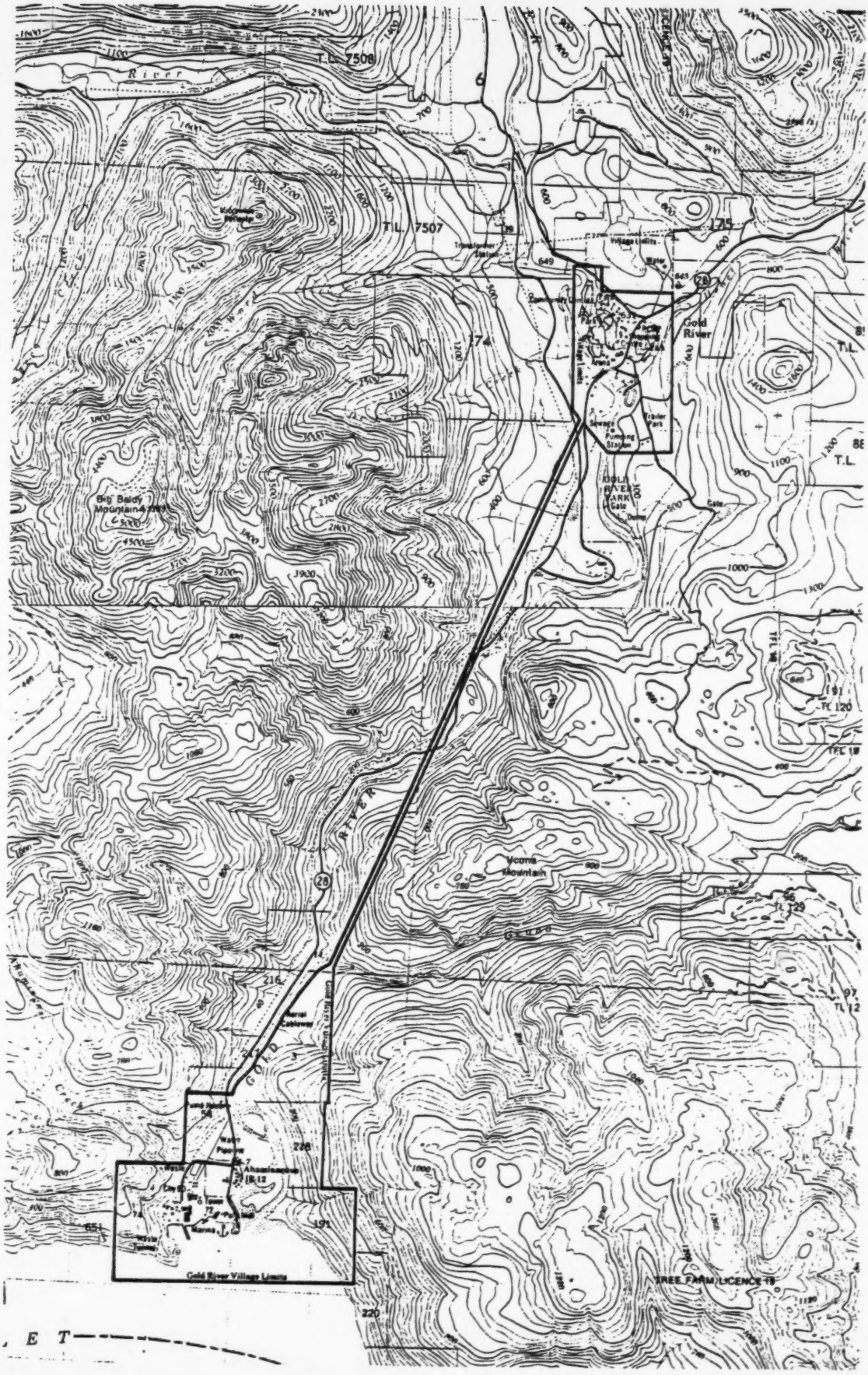
Appendix A-3: Pictoral Examples of Municipal Boundary Extensions



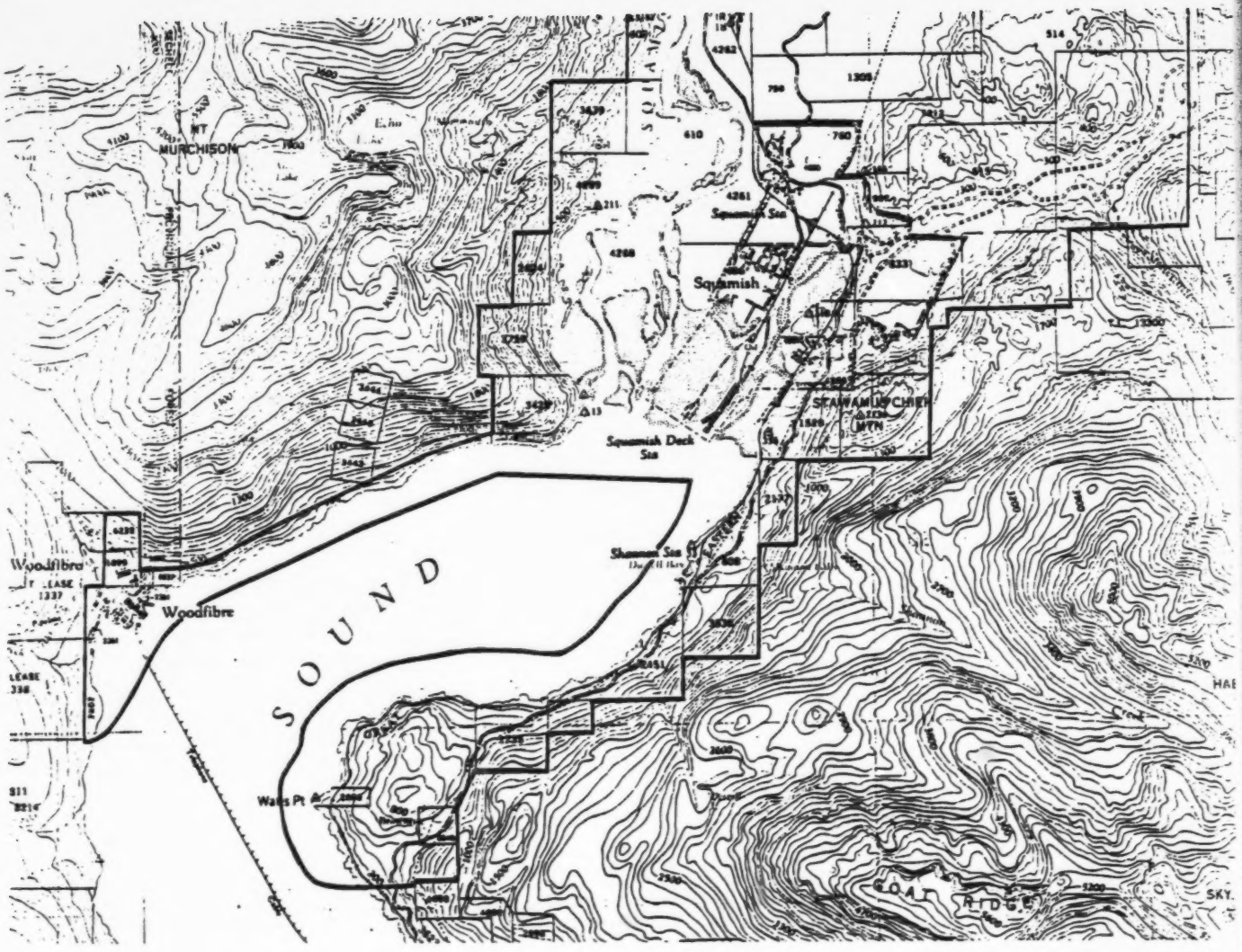
District of Port Hardy



District of Elkford



Village of Gold River



District of Squamish